

CARRYING SYSTEM

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TECHNICAL FIELD

This invention relates in general to the field of carrying devices and systems, and more particularly to a carrying system for an electronic device.

BACKGROUND

10 Present day electronic device carrying systems such as holsters and belt clips do not provide enough flexibility to the electronic device user to allow him to swivel the electronic device 360 degrees and in multiple axes of rotation. With the increase in features in electronic devices such as cellular telephones, a user sometimes needs to view the screen of the cellular telephone or other area while the telephone is still
15 attached to the belt clip or holster without significant effort in order to take advantage of features such as Caller ID. Given the above, a need exists for a carrying system which would alleviate the problem mentioned above.

BRIEF DESCRIPTION OF THE DRAWINGS

The features of the present invention, which are believed to be novel, are set forth with particularity in the appended claims. The invention may best be understood 5 by reference to the following description, taken in conjunction with the accompanying drawings, in the several figures of which like reference numerals identify like elements, and in which:

FIG. 1 shows a side view of a carrying system in accordance with an embodiment of the invention.

10 FIG. 2 shows a view of a two ended swivel member in accordance with an embodiment of the invention.

FIG. 3 shows a partial view of a belt clip component in accordance with an embodiment of the invention.

FIG. 4 shows a full frontal view of the belt clip component of FIG. 3.

15 FIG. 5 shows a top view of the belt clip member.

FIG. 6 shows a frontal view of the swivel base member that attaches to the holster or directly to the electronic device in accordance with an embodiment of the invention.

FIG. 7 shows a side view of the swivel base member of FIG. 6.

20 FIG. 8 shows a top view of the swivel base member of FIG. 6.

FIG. 9 shows a side view of an electronic device being carried by a carrying system in accordance with an embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

While the specification concludes with claims defining the features of the invention that are regarded as novel, it is believed that the invention will be better understood from a consideration of the following description in conjunction with the drawing figures.

Referring to FIG. 1, there is shown a side view of an electronic device carrying system 100 in accordance with an embodiment of the invention. Electronic device carrying system 100 includes a belt clip portion comprising a spring loaded belt clip 102 and a first swivel member (or simply referred to as a first member) or belt clip member 104. First swivel member 104 is attached to a second swivel member (or simply referred to as a second member) or swivel base member 108 using a swivel member such as a two-ended swivel member 110 which connects the belt clip member 104 to the swivel base member 108. Swivel base member 108 can be attached directly to a carry holster 106 or alternatively directly to an electronic device such as a cellular telephone, etc. (not shown) using conventional fastening techniques such as fasteners or adhesives. Although in the preferred embodiment the carrying system is designed to carry an electronic device, it can be used to carry non-electronic devices such as tools, etc.

In FIG. 2, there is shown an isometric view of the two-ended swivel member 110 which has a “bone-shaped” appearance. In one embodiment, the first spherical end 202 is smaller in diameter than the second spherical end 204. The first and second spherical ends 202 and 204 provide for complete swiveling (rotation) of the

carry holster (or electronic device) 106, as well as allows for swiveling at the end attached to belt clip member 104. The extension 206 between the first and second spherical ends 202 and 204 of swivel member 110 allows for the carry holster or radio 106 to be extended outward away from the belt clip component 104 before it is 5 swiveled.

In FIG. 3, there is shown a partial view of the belt clip member 104. Belt clip member 104 includes a large lead-in opening 304 which allows for the first spherical end 202 to be inserted into the belt clip member 104. The belt clip member 104 includes a central circular opening 306 having radiating channels 302 oriented approximately 90 degrees to each other, although any other suitable orientation and number of radiating channels 302 can be used. Once the first spherical end 202 of the swivel member 110 is inserted into the belt clip member 104 via lead-in opening 304, the first spherical end 202 rests inside a cavity such as a substantially spherical cavity found inside of the belt clip member 104. The extension length 206 of the two-ended 10 swivel member 110 can be locked into any one of the radiating channels 302, or it can be allowed to rotate 360 degrees when it is oriented straight out from central opening 306. Since the spherical end 202 of swivel member 110 has a larger diameter than the central opening 306, the swivel member 110 is maintained attached to the belt clip member 104, while allowing the swivel member 110 to swivel freely inside of the belt 15 clip member 104.

A full front view of the belt clip member 104 is shown in FIG. 4. A stopper 402 prevents the swivel member 110 from being released out of its position within the central opening area 306. The stopper 402 can be an integral bump in the top channel 20

302 which requires a large force to remove the swivel member, or a separate piece part that is put in place to help retain the two-ended swivel member 110 from being disconnected from the belt clip member 104 once it has been inserted.

In FIG. 5 there is shown a top view of the belt clip member 104 with the top 5 channel 302 shown. The stopper 402 is also shown in FIG. 5. The belt clip 102, belt clip member 104 and swivel member 110 can be manufactured from a number of materials including plastic.

Referring now to FIG. 6, there is shown a front view of the swivel base member 108. Similar to belt clip member 104, swivel base member 108 includes a central opening 604 having a circular front opening (spherical shape inside) and radiating channels 602 spaced approximately 90 degrees apart (or other suitable orientation based on the design requirements). The radiating channels 602 again like radiating channels 302 found in the belt clip member 104 are used for locking the two-ended swivel member 110 in different orientations. Located inside of the circular 10 front opening 604 is a spherical cavity for receiving the second spherical end 204 of the two-ended swivel member 110. The spherical cavity is larger than the diameter of the second spherical end 204 and thereby allows the two-ended swivel member 110 to swivel or rotate freely. The swivel base component 108 can be attached directly to carrying case 106 or the electronic device (not shown) using conventional fasteners or 15 adhesives.

In FIG. 7, there is shown a side view of the swivel base member 108. The swivel base member includes an opening 702 all the way through the back, which allows the swivel member 110 to be inserted straight in with the first spherical 20

(smaller) end 202 inserted first through the opening 702. Since central opening 604 is smaller in diameter than the second (larger) spherical end 204 it prevents the two-ended swivel member 110 from coming out through the central opening 604. In FIG. 8, there is shown a top view of the swivel base member 108.

5 In FIG. 9, there is shown a side view of an electronic device 902 being carried by the carrying system in accordance with an embodiment of the invention. The two ended swivel member 110 is shown extended horizontally and in position to allow both ends 202 and 204 of the two-ended swivel member 110 to rotate freely. The user can then select which of the radiating channels 302 and 602 he wants to "lock" the
10 two-ended swivel member 110 into. The two-ended swivel member 110 allows the electronic device 902 to be carried in a number of different orientations, while allowing for easy viewing of the electronic device 902.

In one embodiment, once the swivel member 110 is inserted into place with the first spherical end protruding from the central opening 604, the carry case or radio
15 106 is attached to the swivel base member 108. This prevents the two-ended swivel member 110 from being detached from the swivel base member 108.

In operation, if a user lifts up on carry case 106 (or the electronic device if the swivel base member is attached directly to the electronic device) the two-ended swivel member 110 moves horizontal and away from the belt clip component 104, allowing
20 for the carry case 106 (or electronic device) to be rotated in multiple directions. The user can then select which of the channels 302 in the belt clip component and which of the channels 602 in the swivel base component 108 the user wants to the "lock" the two-ended swivel member 110 into. Channels 302 and 602 provide a snug pressure

fit in order to keep the carry case (or electronic device) 106 in place once its position is selected.

Electronic device carrying system 100 allows for easy movement and adjustment of the electronic device or carrying case 106 as the case may be. The use 5 of the two-ended swivel member 110 makes the design simple to manufacture, while providing multiple positions in which the carry case or electronic device can be locked into. This affords the user easy viewing of the electronic device if for example a telephone call has been received and the user wants to read his telephone's display (e.g., caller ID number, etc.).

10 While the preferred embodiments of the invention have been illustrated and described, it will be clear that the invention is not so limited. Numerous modifications, changes, variations, substitutions and equivalents will occur to those skilled in the art without departing from the spirit and scope of the present invention as defined by the appended claims.

15 What is claimed is: